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Bringing Big Ideas to Market

A Method for Obtaining Highly Conductive Graphene-Based Composites

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ABSTRACT

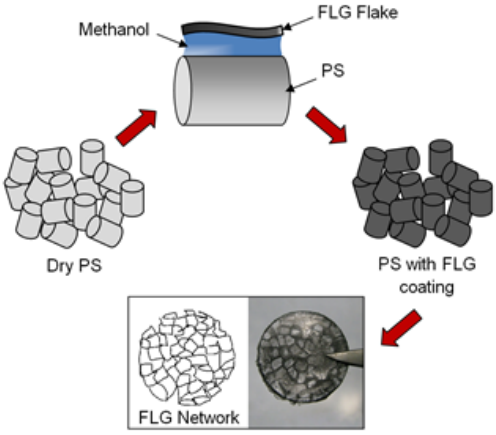
This Electrostatic Dispersion technique is a simple, inexpensive method that can be used to disperse conductive particles (i.e. Graphene, Carbon Nanotubes, Graphite, Carbon black particles, Mineral flakes, etc.) in a highly organized manner within non-conducting polymer materials.

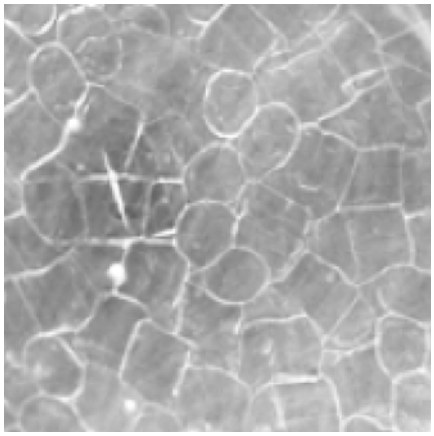
APPLICATION

Application areas include sensing devices, coloring mechanisms, and barrier mechanisms. The sensor mechanism can measure and monitor material strain and damage that may occur within the material. Applicable to mass production of thermoplastics with enhancement of polymer functionality such as thermo/electro conductivity, color, and barrier properties.

FEATURES & BENEFITS

Distributes conductive particles throughout various plastic materials, with significant increase in conductivity with very small amount of graphene or other conductive material. Forms very highly organized conductive network throughout material. Low cost. The sensitivity and conductivity of the polymer composite can be controlled simply by changing the size of the polymer particles and the amount of filler material used. Avoids dispersion of sheet-like conducting fillers isotropically within the polymer, and can be scaled up easily.





PATENT STATUS

Applied

AVAILABILITY

Technology is available for licensing.

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CONTACT TO DISCUSS LICENSING OPTIONS

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